PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 0651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete If Known

Application Number	09/917,257
Filing Date	July 27, 2001
First Named Inventor	Rumynin, Dmitriy
Group Art Unit	2121
Examiner Name	Unknown

Attorney Docket No: 1365.051US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-3,634,658	01/11/1972	Brown, Richard	235	92LG	03/19/1970
	US-3,757,098	09/04/1973	Wright, Carl	235	175	05/12/1972
	US-4,607,176	08/19/1986	Burrows, James, et al.	307	449	08/22/1984
	US-5,095,457	03/10/1992	Ho-sun Jeong	364	758	02/01/1990
	US-5,175,862	12/29/1992	Phelps, Andrew, et al.	395	800	06/11/1990
	US-5,524,082	06/04/1996	Horstmann, P., et al.	364	489	06/28/1991
	US-5,995,029	11/30/1999	Ryu, Myung	341	101	10/29/1997
	US-6,023,566	02/08/2000	Belkhale, K., et al.	395	500.03	04/14/1997

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T²
	EP-0168650	01/22/1986	Darringer, J., et al.	G06F	15/60	
	EP-0309292	03/29/1989	Nishiyama, T., et al.	G06F	15/60	
	EP-0442356	08/21/1991	Chang, Yen C., et al.	G06F	7/50	
	EP-0741354	11/06/1996	Ichikawa, Takeshi	G06F	7/60	
	FR-2475250	08/07/1981	Houdard, Jean-Pierre, et al.	606F	7/38	With English Abstract
	GB-2016181	09/19/1979	Gajski, Daniel, et al.	606F	7/39	
	GB-2062310	05/20/1981	Ohhashi, Masahide, et al.	606F	7/52	
	GB-2365636	02/20/2002	Rumynin, D., et al.	G06F	7/60	
	GB-2365637	02/20/2002	Rumynin, D., et al..	G06F	7/60	
	WO-99/22292	05/06/1999	Verbauwhede, Ingrid	606F	7/52	
	WO-02/12995	02/14/2002	Meulemans, P., et al.	G06F	7/00	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		BOOTH, ANDREW, "A Signed Binary Multiplication Technique", Oxford University Press, Reprinted from Q.J. Mech. Appl. Math. 4:236-240, (1951), pp. 100-104	
		CHAKRABORTY, S., et al., "Synthesis of Symmetric Functions for Path-Delay Fault Testability", 12th International Conference on VLSI Design, (1999), pp. 512-517	
		DADDA, L., "On Parallel Digital Multipliers", Associazione Elettrontecnia ed Elettronica Italiana, Reprinted from Alta Freq. 45:574-580, (1976), pp. 126-132	
		DADDA, L., "Some Schemes For Parallel Multipliers", Assocciazione Elettrotenica ed Elettronica Italiana, Reprinted from Alta Freq. 34:349-356,	

EXAMINER D. H. Malzahn DATE CONSIDERED 11/17/04

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional) ² Applicant is to place a check mark here if English language Translation is attached

PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known	
Application Number	09/917,257
Filing Date	July 27, 2001
First Named Inventor	Rumynin, Dmitriy
Group Art Unit	2121
Examiner Name	Unknown

Sheet 2 of 2

Attorney Docket No: 1365.051US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No [1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T [2]
		(1965), pp. 118-125	
		DEBNATH, D., "Minimization of AND-OR-EXOR Three-Level Networks with AND Gate Sharing", IEICE Trans. Inf. & Syst., Vol. E80-D, No. 10, (1997), pp. 1001-1008	
		DRECHSLER, R., et al., "Sympathy: Fast Exact Minimization of Fixed Polarity Reed-Muller Expressions for Symmetric Functions", IEEE, (1995), pp. 91-97	
		DRECHSLER, R., et al., "Sympathy: Fast Exact Minimization of Fixed Polarity Reed-Muller Expressions for Symmetric Functions", IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, Vol. 16, No. 1, (1997), pp. 1-5	
		FLEISHER, H., "Combinatorial Techniques for Performing Arithmetic and Logical Operations", IBM Research Center, RC-289, Research Report, (July 18, 1960), pp. 1-20	
		FOSTER, CAXTON, et al., "Counting Responders in an Associative Memory", The Institute of Electrical and Electronics Engineers, Inc., Reprinted, with permission, from IEEE Trans. Comput. C-20:1580-1583, (1971), pp. 86-89	
		HO, I., et al., "Multiple Addition by Residue Threshold Functions and Their Representation By Array Logic", The Institute of Electrical and Electronics Engineers, Inc., Reprinted, with permission from IEEE Trans. Comput. C-22: 762-767, (1973), pp. 80-85	
		JONES, ROBERT, et al., "Parallel Counter Implementation", IEEE, (1992), pp. 381-385	
		NIENHAUS, H., "Efficient Multiplexer Realizations of Symmetric Functions", IEEE, (1981), pp. 522-525	
		OKLOBDZIJA, V.G., et al., "Improving Multiplier Design by Using Improved Column Compression Tree and Optimized Final Adder in CMOS Technology", IEEE Transactions on Very Large Scale Integration (VLSI) Systems, Vol. 3, No. 2, (1995), pp. 292-301	
		SWARTZLANDER, JR., EARLE, "Parallel Counters", Institute of Electrical and Electronic Engineers, Inc., Reprinted, with permission from IEEE Trans. Comput. C-22:1021-1024, (1973), pp. 90-93	
		VASSILIADIS, S., et al., "7/2 Counters and Multiplication with Threshold Logic", IEEE, (1997), pp. 192-196	
		WALLACE, C., "A Suggestion for a Fast Multiplier", IEEE Transactions on Electronic Computers, (1964), pp. 14-17	
		ZURAS, D, et al., "Balanced Delay Trees and Combinatorial Division in VLSI", IEEE Journal of Solid State Circuits, SC-21, IEEE Inc, New York, Vol. SC-21, No. 5, (1986), pp. 814-819	

EXAMINER D. H. Malzahn DATE CONSIDERED 11/17/04

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional) [2] Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known	
Application Number	09/917,257
Filing Date	July 27, 2001
First Named Inventor	Rumynin, Dmitriy
Gr up Art Unit	2121
Examiner Name	Unknown

Sheet 1 of 1

Attorney Docket No: 1365.051US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-4,399,517	08/16/1983	Niehaus, Jeffrey A., et al.	364	784	03/19/1981
	US-5,095,547	03/17/1992	Kerns, Carol S.	2	160	06/13/1991
	US-5,187,679	02/16/1993	Vassiliadis, Stamatis, et al.	364	786	06/05/1991
	US-5,325,320	06/28/1994	Chiu, Chiao-Er A.	364	760	05/01/1992
	US-5,343,417	08/30/1994	Flora, Laurence P.	364	758	11/20/1992
	US-5,497,342	03/05/1996	Mou, et al.	364	786	11/09/1994
	US-6,490,608	12/03/2002	Zhu, Jay	708	626	12/09/1999

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T[2]

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		GOTO, et al., "A 54 x 54-b Regularly Structured Tree Multiplier", IEEE Journal of Solid-State Circuits, Vol 27, No. 9, (Sept. 1992),1229-1236	
		HEKSTRA, et al., "A Fast Parallel Multiplier Architecture", IEEE International Symposium on Circuits and Systems; Institute of Electrical and Electronic Engineers, c1977-c1996, 20v. ;ill. :28cm, (1992),2128-2131	

EXAMINER D H. Mu | zuhn **DATE CONSIDERED** 11/17/04

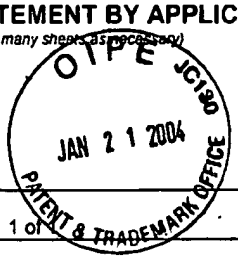
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)



Sheet 1 of

Complete if Known	
Application Number	09/917257
Filing Date	July 27, 2001
First Named Inventor	Rumynin, Dmitriy
Group Art Unit	~~2121~~ 2124
Examiner Name	Unknown
Attorney Docket No: 1365.051US1	

US PATENT DOCUMENTS						
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-5,964,827	10/12/1999	Ngo, Hung C., et al.	708	710	11/17/1997

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T[2]

OTHER DOCUMENTS – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No [1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]

EXAMINER D. H. Malzahn DATE CONSIDERED 11/17/04

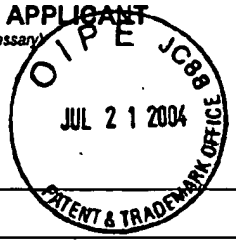
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional) [2] Applicant is to place a check mark here if English language Translation is attached

PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 0651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)



Sheet 1 of 1

Complete if Known	
Application Number	09/917,257
Filing Date	July 27, 2001
First Named Inventor	Rumynin, Dmitriy
Group Art Unit	~~2121~~ 2121
Examiner Name	Unknown
Attorney Docket No: 1365.051US1	

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-6,175,852	01/16/2001	Dhong, S. H., et al.	708	712	07/13/1998
	US-6,269,386	07/31/2001	Siers, S. E., et al.	708	710	10/14/1998

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T[2]

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No [1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		BEDRIJ, O. J., "Carry-Select Adder", IRE Trans., EC-11, (June 1962),340-346	
		KNOWLES, S. , "A Family of Adders", Proc. 14th IEEE Symp. on Computer Arithmetic, (1999),30-34	
		KOGGE, P. M., et al., "A Parallel Algorithm for the Efficient Solution of a General Class of Recurrence Equations", IEEE Trans. Computers, Vol. C-22, No. 8, (Aug. 1973),786-793	
		LADNER, RICHARD E., et al., "Parallel Prefix Computation", Journal of ACM, Vol. 27, No. 4, (Oct. 1980),831-838	
		LING, HUEY , "High-Speed Binary Adder", IBM Journal of Research and Development, Vol. 25, No. 3, (1981),156-166	
		SKLANSKY, J., "Conditional-Sum Addition Logic", IRE Trans., EC-9, (June 1960),226-231	
		WEINBERGER, A., et al., "A Logic for High-Speed Addition", Nat. Bur. Stand. Circ., 591, (1958),3-12	

EXAMINER D. H. Malzahn **DATE CONSIDERED** 11/17/04

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional) [2] Applicant is to place a check mark here if English language Translation is attached